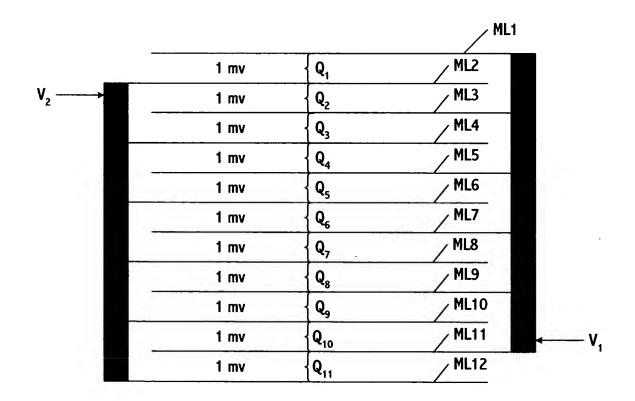
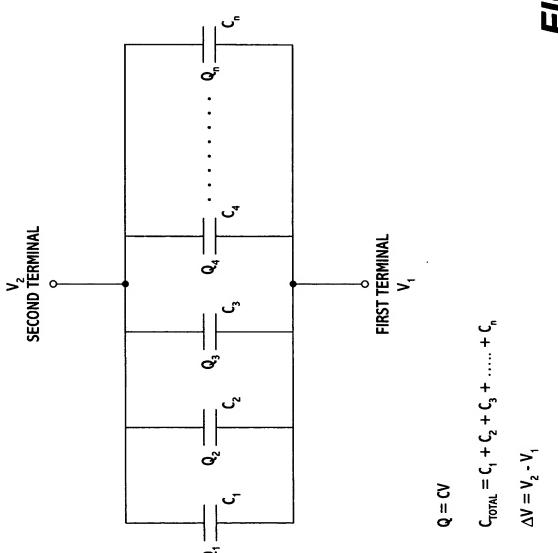


FIG. 1



 $\mathbf{Q}_{\text{TOTAL}} = \mathbf{Q}_{1} + \mathbf{Q}_{2} + \mathbf{Q}_{3} + \mathbf{Q}_{4} + \mathbf{Q}_{5} + \mathbf{Q}_{6} + \mathbf{Q}_{7} + \mathbf{Q}_{8} + \mathbf{Q}_{9} + \mathbf{Q}_{10} + \mathbf{Q}_{11}$ 

FIG. 2



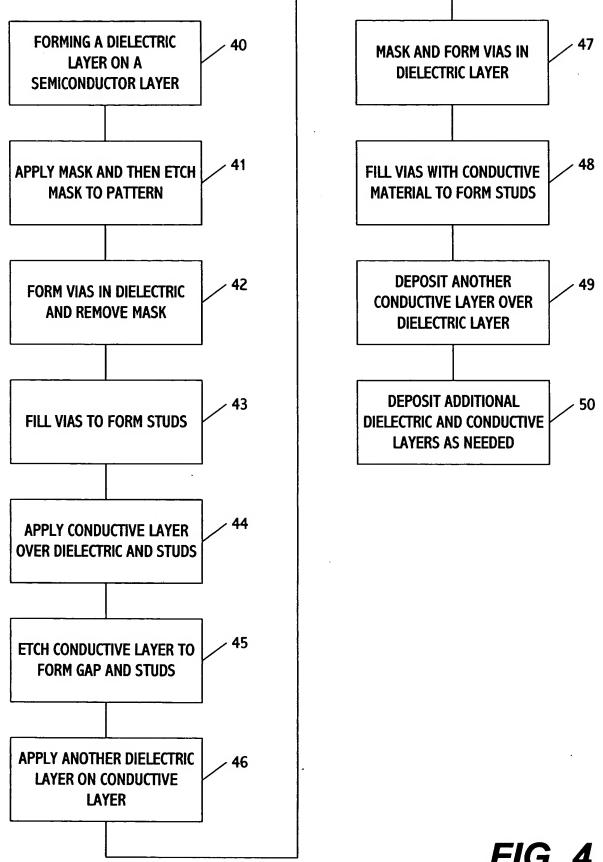


FIG. 4



FIG. 5(a)

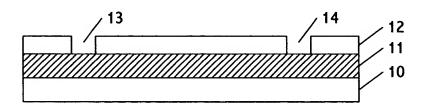


FIG. 5(b)

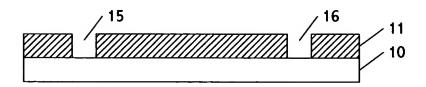


FIG. 5(c)

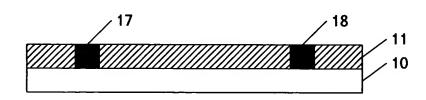


FIG. 5(d)

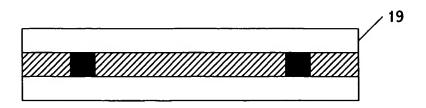


FIG. 5(e)

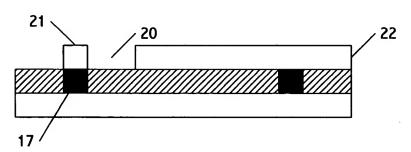


FIG. 5(f)

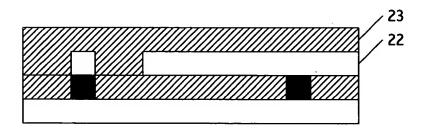


FIG. 5(g)

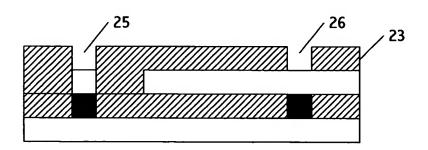


FIG. 5(h)

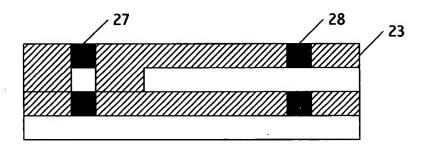


FIG. 5(i)

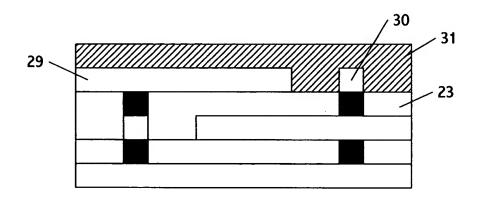


FIG. 5(j)

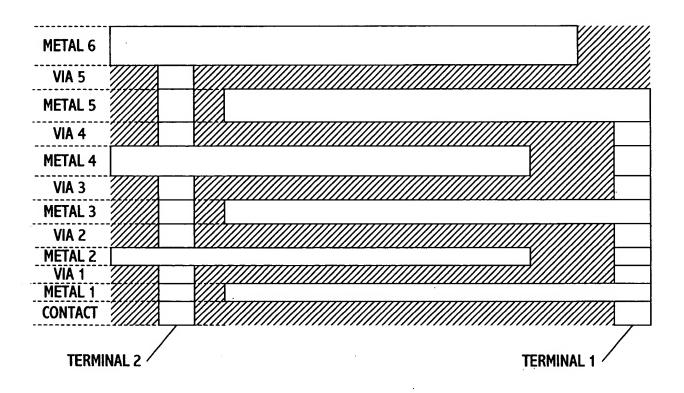


FIG. 5(k)

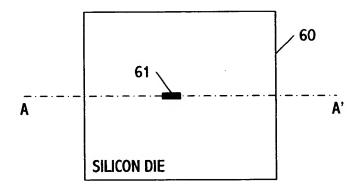


FIG. 6(a)

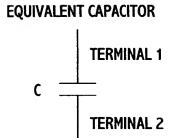


FIG. 6(b)

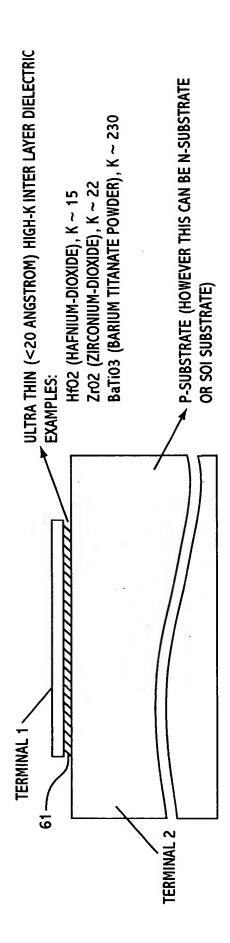


FIG. 6(c)

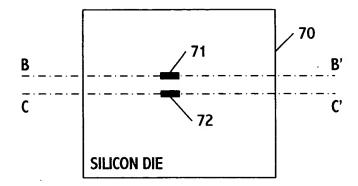


FIG. 7(a)

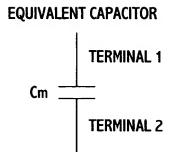


FIG. 7(b)

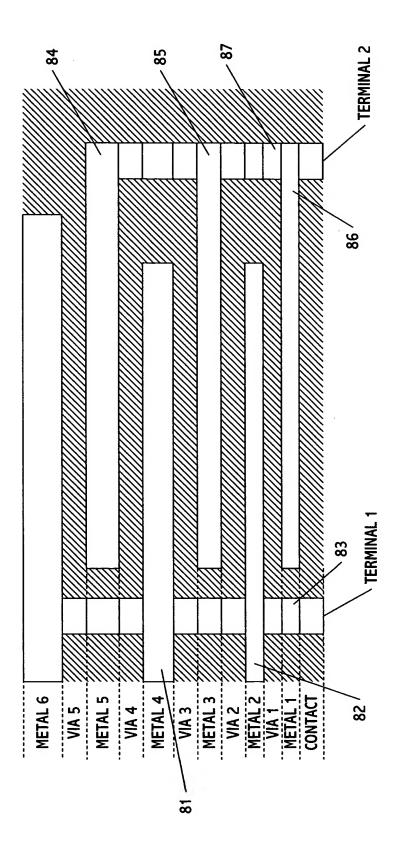


FIG. 8(a)

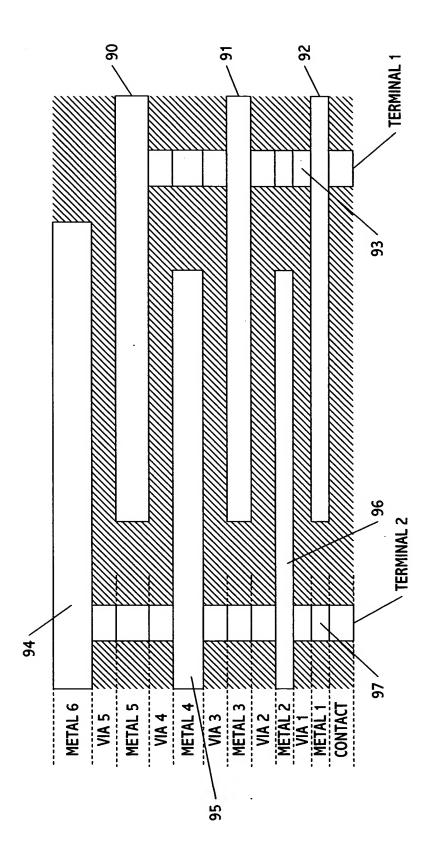


FIG. 8(b)

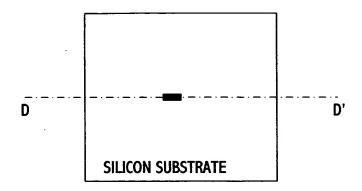


FIG. 9(a)

## **EQUIVALENT CAPACITOR**

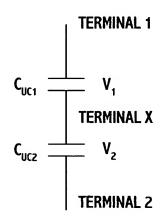


FIG. 9(b)

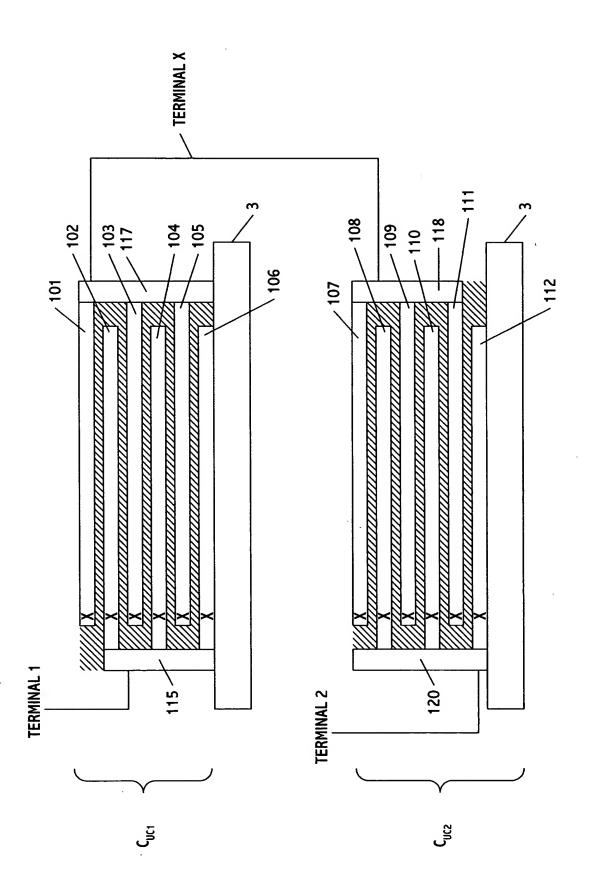
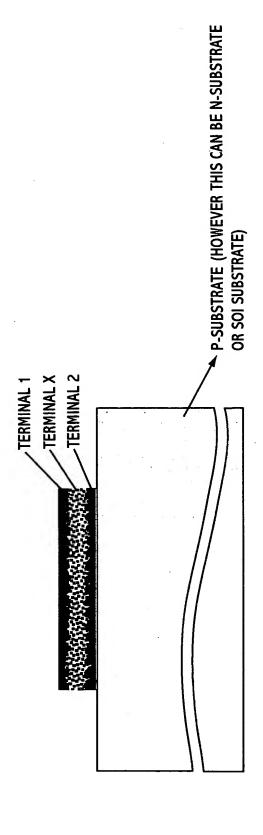


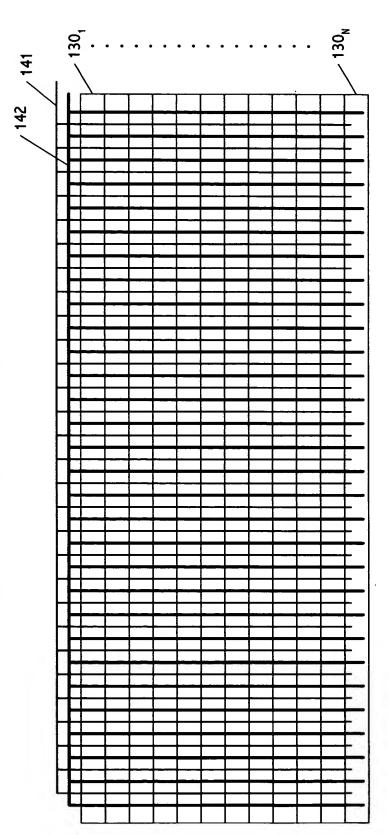
FIG. 10



ELECTRODE (TERMINAL 1) - EXAMPLE: POROUS CARBON OR DOPED SILICON. CAN BE CONDUCTIVE CARBON OR SILICON NANOTUBE ELECTROLYTE (TERMINAL X) - EXAMPLE: POTASSIUM HYDROXIDE ELECTRODE (TERMINAL 2) - EXAMPLE: POROUS CARBON OR DOPED SILICON. CAN BE CONDUCTIVE CARBON OR SILICON NANOTUBE

FIG. 11

EXAMPLE CROSS SECTION SHOWING STACKING OF MULTIPLE SUBSTRATE TO INCREASE THE CAPACITANCE PER UNIT AREA



TERMINAL 1

FIG. 12

## ENERGY EXTRACTION CIRCUIT (INTEGRATED WITH THE CAPACITOR)

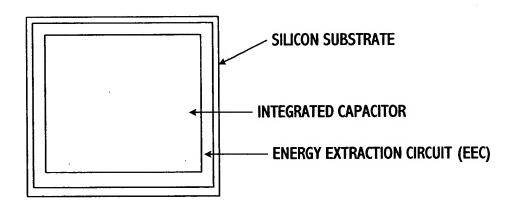


FIG. 13

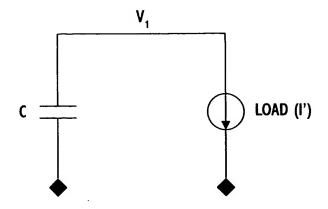


FIG. 14

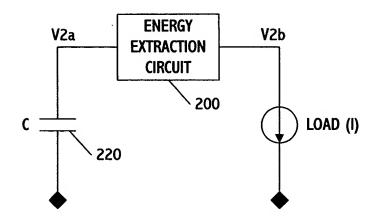
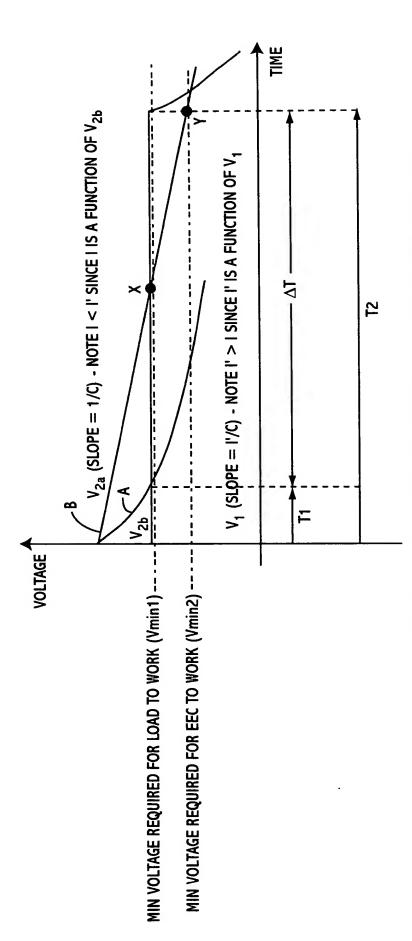
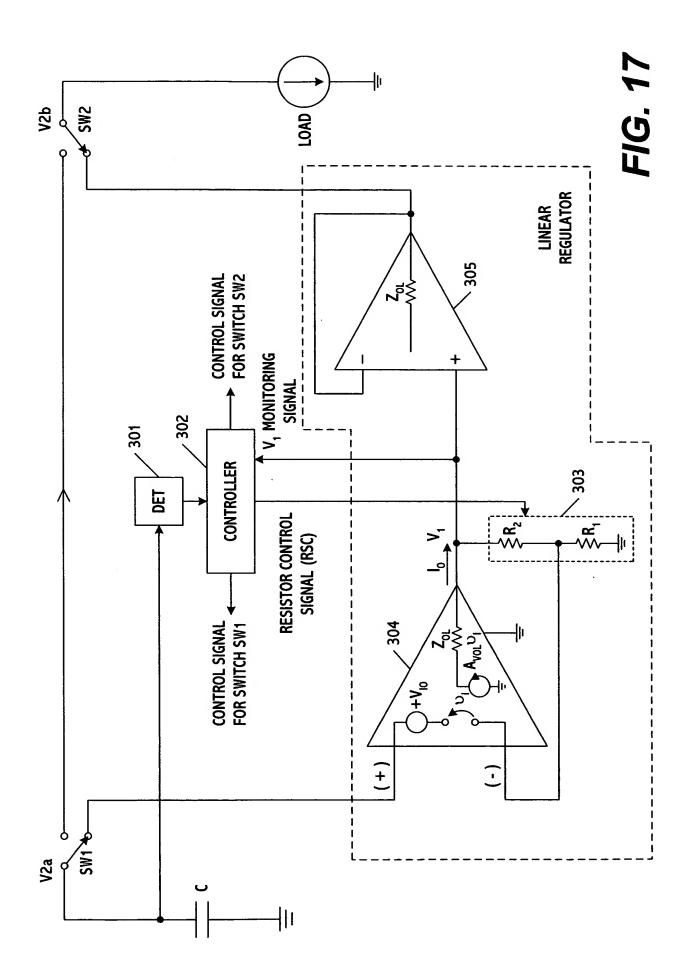


FIG. 16



12 - DURATION FOR WHICH THE CAPACITOR ENERGY CAN BE USED BY THE LOAD WITH EEC T1 - DURATION FOR WHICH THE CAPACITOR ENERGY CAN BE USED BY LOAD WITHOUT EEC

FIG. 15



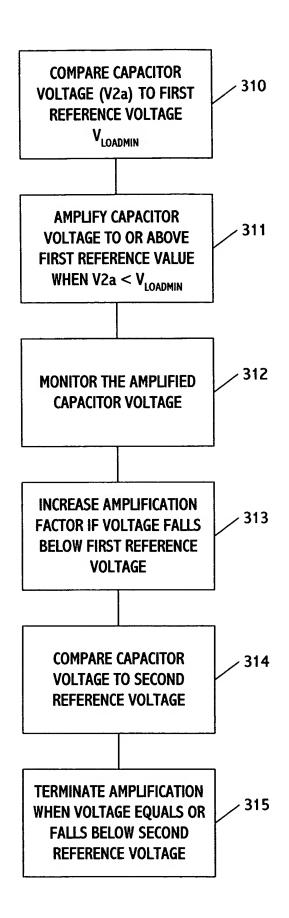
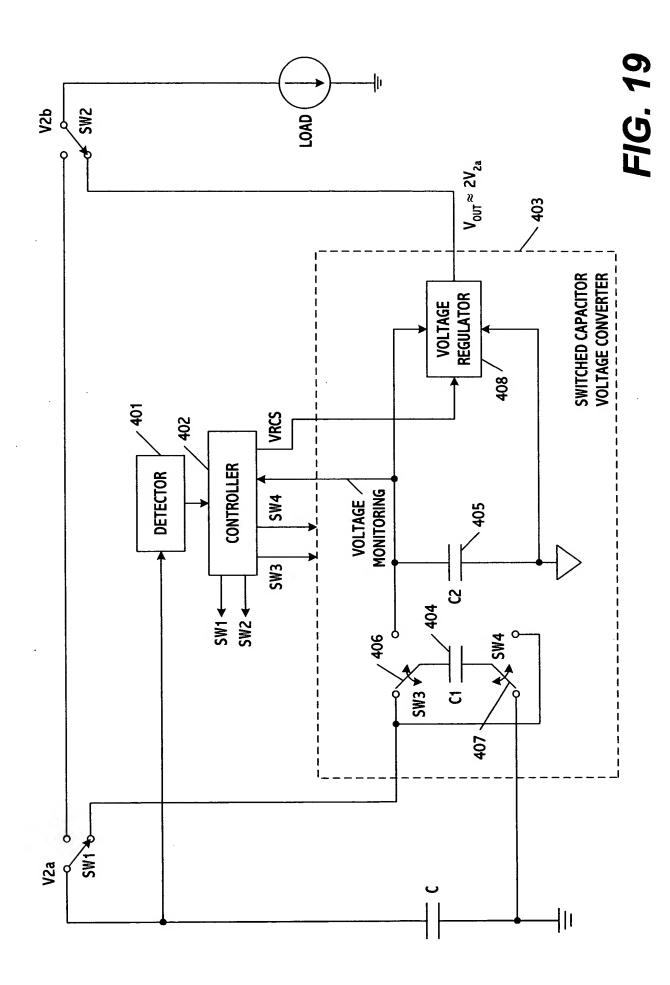


FIG. 18



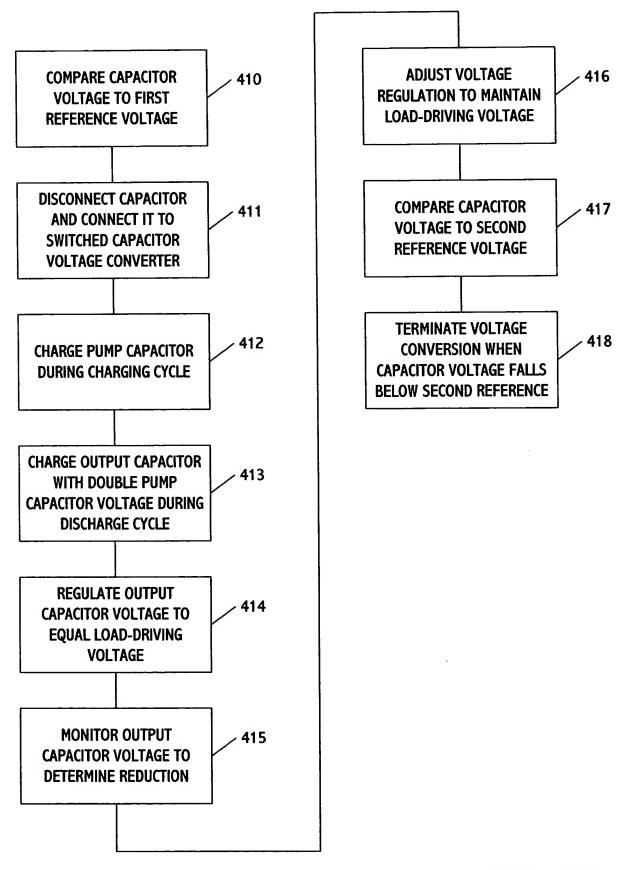
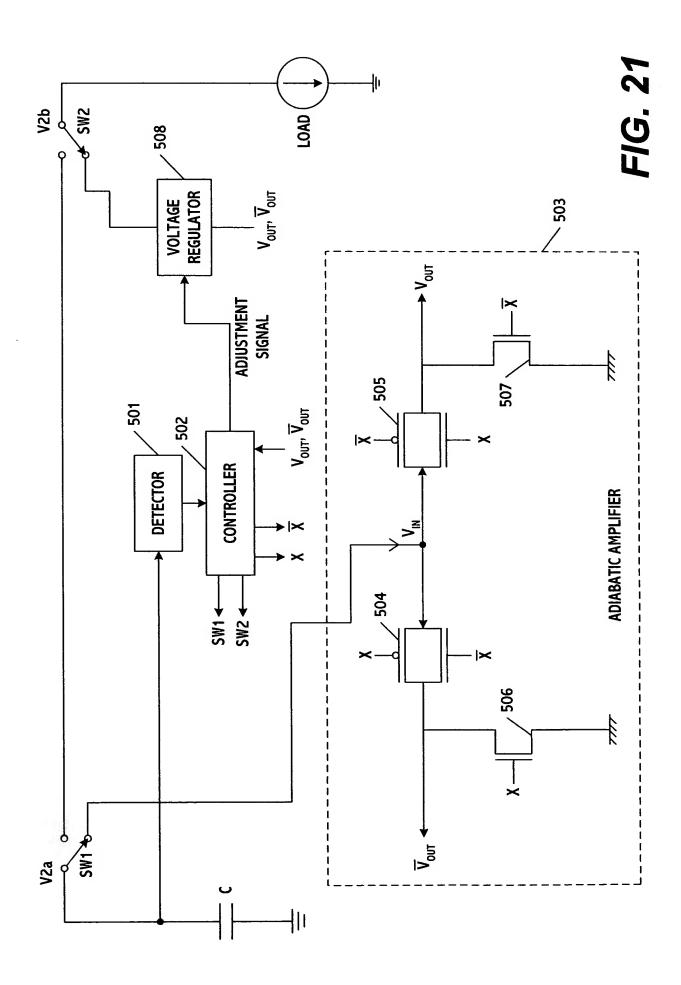


FIG. 20



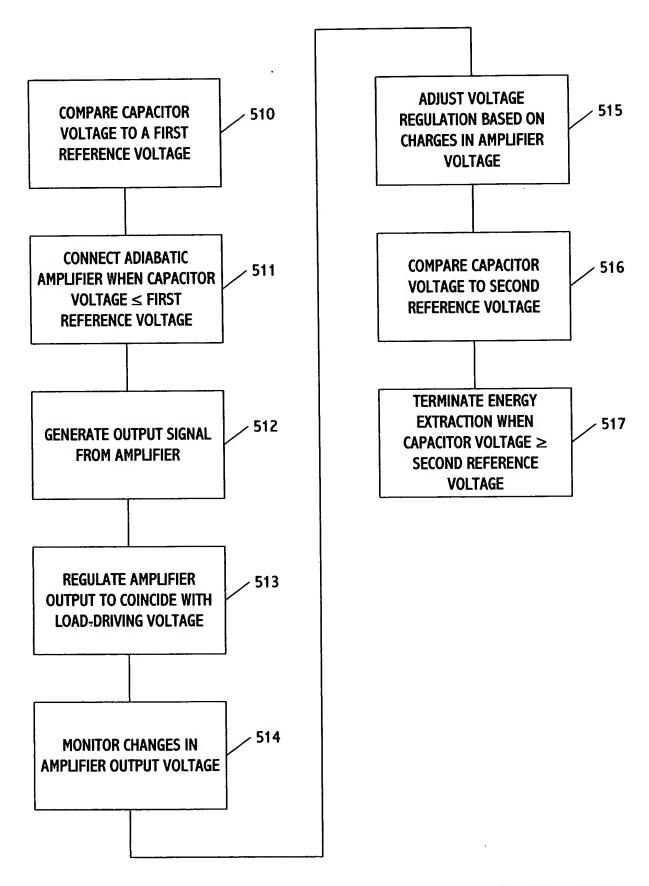


FIG. 22

